CLAIMS:

1.   A method of calculating a mapping probability that a semantic tag of a
set of candidate semantic tags is assigned to a phrase, wherein the calculation of the
mapping probability is performed by means of a statistical procedure based on a set of
phrases constituting a corpus of sentences, each of the phrases having assigned a set of
5 candidate semantic tags.

2.   The method according to claim 1, for each phrase further comprising
calculating a set of mapping probabilities, providing the probability for each semantic
tag of the set of candidate semantic tags being assigned to the phrase.
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3.   The method according to claim 2, further comprising determining one
semantic tag of the set of candidate semantic tags having the highest mapping
probability of the set of mapping probabilities and mapping the one semantic tag to the
phrase.
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4.   The method according to any one of the claims 1 to 3, wherein the
statistical procedure comprises an expectation maximization algorithm.

5.   The method according to claim 3 or 4, further comprising storing of
20 performed mappings between a candidate semantic tag and a phrase in form of a
mapping table in order to derive a grammar being applicable to unknown sentences or
unknown phrases.

6.   A computer program product for calculating a mapping probability that a
25 semantic tag of a set of candidate semantic tags is assigned to a phrase, wherein the

calculation of the mapping probability is performed by means of a statistical procedure based on a set of phrases constituting a corpus of sentences, each of the phrases having assigned a set of candidate semantic tags.

5   7.   The computer program product according to claim 6, for each phrase further comprising program means for calculating a set of mapping probabilities, providing the probability for each semantic tag of the set of candidate semantic tags being assigned to the phrase.

10 8.   The computer program product according to claim 7, further comprising program means for determining one semantic tag of the set of candidate semantic tags having the highest mapping probability of the set of mapping probabilities and mapping the one semantic tag to the phrase.

15 9.   The computer program product according to any one of the claims 6 to 8, wherein the statistical procedure comprises an expectation maximization algorithm.

    10.   The computer program product according to claim 8 or 9, further comprising program means for storing of performed mappings between a semantic tag
20 and a phrase or a sequence of phrases in form of a mapping table in order to derive a grammar being applicable to unknown sentences or unknown phrases or unknown sequences of phrases.

    11.   A system for mapping a semantic tag to a phrase of a comprising means
25 for calculating a mapping probability that a semantic tag of a set of candidate semantic tags is assigned to a phrase, wherein the calculation of the mapping probability is performed by means of a statistical procedure based on a set of phrases constituting a corpus of sentences, each of the phrases having assigned a set of candidate semantic tags.

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12.   The system according to claim 11, for each phrase further comprising calculating a set of mapping probabilities, providing the probability for each semantic tag of the set of candidate semantic tags being assigned to the phrase.

5   13.   The system according to claim 12, further comprising determining one semantic tag of the set of candidate semantic tags having the highest mapping probability of the set of mapping probabilities and mapping the one semantic tag to the phrase.

10   14.   The system according to any one of the claims 11 to 13, wherein the statistical procedure comprises an expectation maximization algorithm.

15.   The system according to claim 13 or 14, further comprising means for storing of performed mappings between a semantic tag and a phrase or a sequence of .
15   phrases in form of a mapping table in order to derive a grammar being applicable to
· unknown sentences or unknown phrases or unknown sequences of phrases.